R3G250-AT39-71

EC centrifugal fan - Plug fan

backward curved, single inlet



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G250-AT39-71**	
Motor	**M3G084-DF**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3000
Power input	W	448
Current draw	A	2.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		63.1	43.9	47.9
Efficiency grade N		77.2	58	62
Power input P_{ed}	kW	0.45		
Air flow q_v	m^3/h	1550		
Pressure increase p_{fs}	Pa	601		
Speed n	min^{-1}	2940		

Data established at point of optimum efficiency

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Technical features

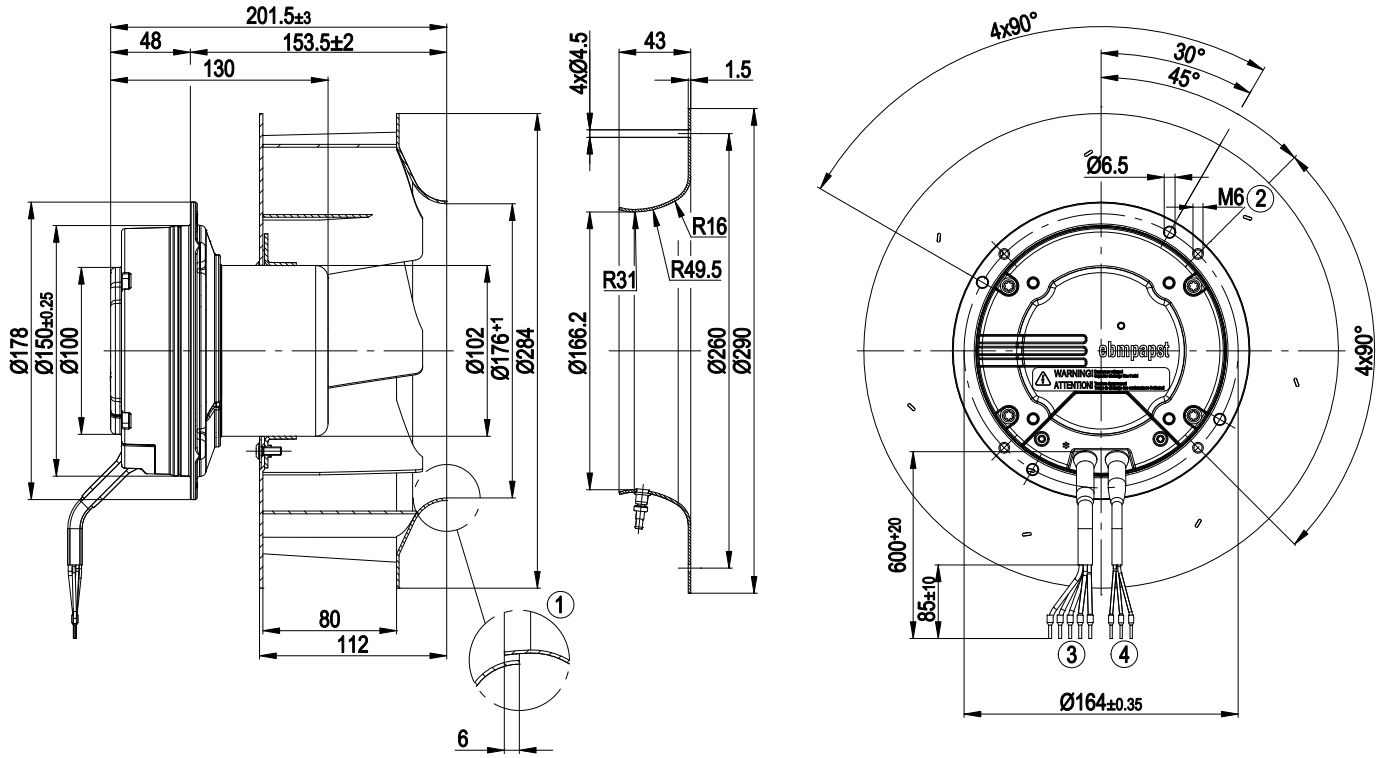
Mass	4.42 kg
Size	250 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet aluminium, laser-welded
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Over-temperature protected electronics / motor - Alarm relay - Line undervoltage detection - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC

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Product drawing



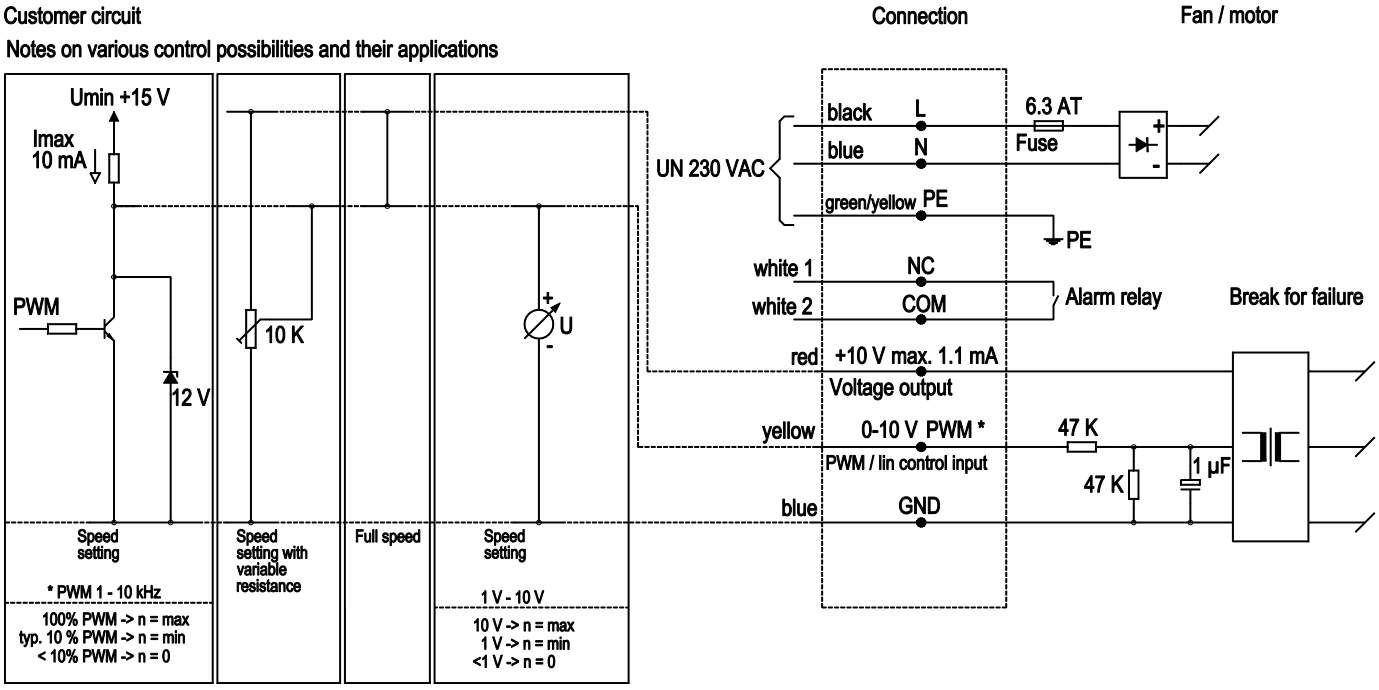
1	Accessory part: inlet nozzle 25075-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw min. 8 mm, max. 10 mm
3	Connection line AWG18, 5 x crimped core-end sleeves
4	Connection line AWG22, 3 x crimped core-end sleeves

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Connection screen

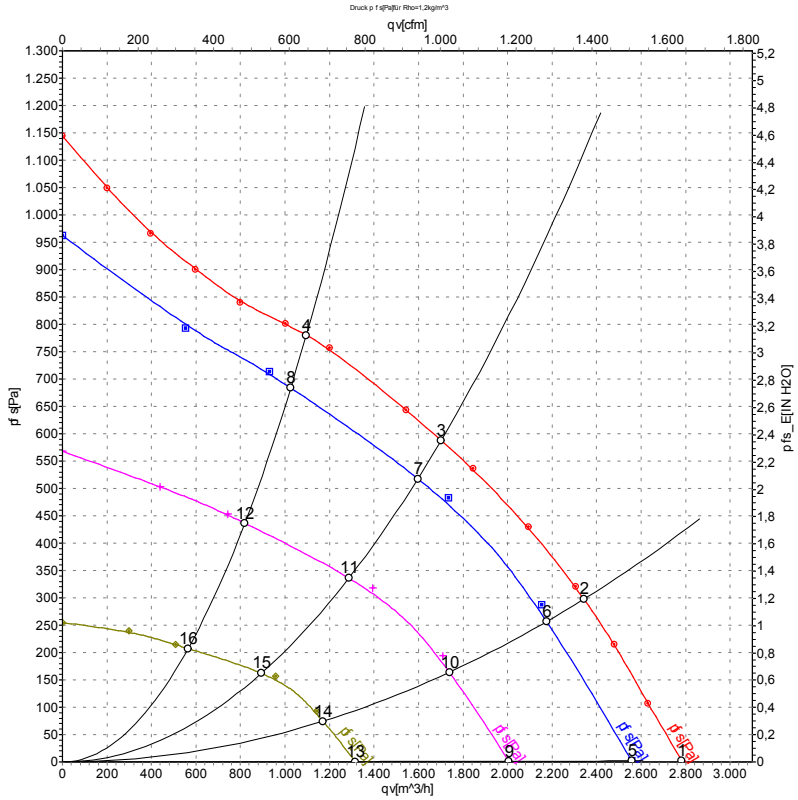


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Charts: Air flow 50 Hz



Measurement: LU-108683
Measurement: LU-124170
Measurement: LU-124171
Measurement: LU-124172

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	3175	380	2.48	2785	0
2	230	50	3045	435	2.80	2345	300
3	230	50	3000	450	2.80	1700	590
4	230	50	3020	436	2.80	1095	780
5	230	50	2925	294	1.90	2555	0
6	230	50	2845	335	2.16	2175	271
7	230	50	2790	341	2.25	1595	522
8	230	50	2835	326	2.14	1025	686
9	230	50	2300	142	0.97	2005	0
10	230	50	2265	166	1.12	1740	174
11	230	50	2240	174	1.19	1285	340
12	230	50	2270	163	1.13	820	438
13	230	50	1510	44	0.34	1315	0
14	230	50	1520	53	0.40	1170	78
15	230	50	1555	58	0.45	895	165
16	230	50	1555	55	0.43	565	208

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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